STAFF REPORT

TO: Environment & Planning Subcommittee

FROM: Mike Mackiggan, Consent Planner - Natural Resources

REFERENCES: RM090271- Discharge of Domestic Wastewater to Land

SUBJECT: **MARAHAU ESTATES LTD - REPORT REP11-03-02 -** Report prepared for hearing of 8 and 9 March 2011

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1. DESCRIPTION OF THE PROPOSED ACTIVITY

The applicant - Marahau Estates Limited have lodged a suite of resource consent applications including to:

- Formally increase overall maximum campground numbers to from 140 to 500 campers (reflective of the peak season of 22 December - 31 January, but to lower levels for the remainder of the year (RM090280);

- Associated domestic wastewater and greywater discharges in the Rural 1 Zone up to a short-term peak-load maximum of 26,780 litres per day of wastewater, and 21, 270 litres per day of greywater in accordance with the exiting system's upgraded design as recommended in the Cameron Gibson and Wells Report 12231-15a as updated on 1 September 2009 (RM090271).

This report relates to the discharges of domestic wastewater (both black and grey) to land from the proposed current levels of development on the site.

The applicant's agents Cameron Gibson and Wells Limited , Consulting Chartered Professional Engineers, have proposed upgrades and additions to the on-site treatment and discharge methods for the domestic wastewater to cater for the short-term peak-loading likely over the Christmas/New Year period.

The upgraded wastewater systems proposed are "primary treatment" system which produce an acceptable quality of effluent with the majority of the treatment occurring within the free draining soils after the wastewater is discharged to land application areas comprising a network of lined evapo-transpiration beds or low-pressure compensating drip irrigation lines.

The other components of the bundled suite of applications have been described in detail in the reports by Paul Gibson (RM090280 and RM090273), Pauline Webby (RM090272), and Neil Tyson (RM090747), to which the reader is directed for further

information on those other matters. I have also reported upon RM090748 which relates to the construction of additional/extended stopbanks.

1.2 Site Location and Description

The 32 hectare property is located in the Rural 1 and 2 Zones at 54 Harvey Road, Marahau, and has been the location of Old MacDonalds Farm and Holiday Park campground since 1993/94.

The property is fully described in detail in the Planscapes application "Assessment of Effects on the Environment", and can be summarised as two components, the campground and the farm, set in the rural surroundings of the Marahau River Valley, and bordering left bank of the Marahau River. Barons Creek runs through the property flowing north to south.

The Old MacDonalds Farm Campground and Holiday Park is proposed to occupy Lot 1 should subdivision RM090272 be approved. Lot 1 is that land entirely within the Rural 1 zone.

The balance of the site is in generally level / gently rolling pasture and amenity plantings, with the applicant's residence situated on proposed Lot 4, in land that is zoned Rural 2.

The underlying geology of the area is classified as a fine sand loam topsoil from 200 to 500mm (Category 2), over fine to coarse sand layers (Category 1), with some rocks encountered at depths of 800mm or more. Test logs undertaken by Cameron Gibson Wells Limited have identified as per AS/NZS 1547:2000 the overall soil category in the proposed effluent land application areas as Category 1 - Gravels and Sands - Rapidly Drained.

1.3 Legal Description

Address of property: 54 Harvey Road, Marahau
Legal description: Proposed Lot 1 after subdivision of Pt Sec 115 Motueka District
Certificate of title: NL12A/618
Valuation number: 1931007601

2. TASMAN RESOURCE MANAGEMENT PLAN (TRMP) ZONING, AREAS AND RULES AFFECTED

The wastewater application site is within the Rural 1 Zone. The relevant TRMP Rule for a proposal is Discretionary Activity Rule 36.1.16 as the proposed discharge does not meet the Permitted Activity Standards in Rules 36.1.4 and 36.1.6 (due to the volumes of wastewater effluent to be discharged during peak season site-wide exceeding a weekly averaged flow of 2000 litres per day).

This consent is bundled with the above land use and subdivision applications which are deemed to also be Discretionary Activities, therefore this application remains assessed as a **Discretionary Activity** under Rule 36.1.16.

3. CONSULTATION, APPROVALS AND SUBMISSIONS

3.1 Consultation

The application was publicly notified on 27 November 2010.

3.2 Submissions

Twenty-two submissions in total were received.

Six submissions in opposition to the overall proposals were subsequently received. Ten submission was received in support of the overall proposals

As far as the Wastewater component of the proposals are concerned, one of the submissions (No. 5) was in opposition, and one in part-opposition (No.19). Both submissions included specific comments amongst others on the wastewater disposal aspects of the proposed development.

Both submitters have concerns regarding the scale of the discharge and the proximity to the Marahau River, and both opine that secondary treatment might be better suited, with regular monitoring of effluent quality around the ETS beds and adjoining neighbouring boundaries.

4. PRINCIPAL ISSUES

The principal issue associated with the wastewater discharge application is:

a) Can the maximum levels of campground occupancy sought be adequately serviced in terms of domestic wastewater disposal, such that the effects on groundwater and or the Marahau River be no more than minor and ensure that there are no cross boundary effects?

5. STATUTORY PROVISIONS

The wastewater discharge proposed in the application is a **Discretionary Activity** as the volumes of wastewater effluent to be discharged during peak season site wide exceeding a weekly averaged flow of 2000 litres per day.

The Council must consider the application pursuant to Section 104 and Section 107 of the Resource Management Act 1991.

The matters for Council to consider in Section 104 are:

- Part II matters;
- the actual and potential effects on the environment of allowing the activity (Section 104 (1)(a));
- any relevant provisions of a national environmental standard, other regulations, a national policy statement, the New Zealand coastal policy statement, the Tasman Regional Policy Statement and the Tasman Resource Management Plan (Section 104 (1) (b))

- any other matter the Council considers relevant and reasonably necessary to determine the application (Section 104 (1)(c)).

The matters for Council to consider in Section 107 are:

- the Council shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A.

5.1 Resource Management Act Part II Matters

In considering an application for resource consent, the Council must ensure that if granted, the proposal is consistent with the purpose and principles set out in Part II of the Act.

Section 5 sets out the **purpose** of the Act which is to promote the sustainable management of natural and physical resources. "Sustainable management" means:

"Managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while -

- *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

- *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*

- *avoiding, remedying, or mitigating any adverse effects of activities on the environment"*

Sections 6, 7 and 8 set out the **principles** of the Act:

Section 6 of the Act refers to matters of national importance that the Council shall recognise and provide for in achieving the purpose of the Act. The matters relevant to this application are:

- The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development.

Section 7 of the Act identifies other matters that the Council shall have particular regard to in achieving the purpose of the Act. Relevant matters to this application are:

- 7(b) the efficient use and development of natural and physical resources;

- 7(f) maintenance and enhancement of the quality of the environment, and

- 7(g) any finite characteristics of natural and physical resources

Section 8 of the Act shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). I do not anticipate that there are any relevant issues for this application in respect of Section 8.

If consent is granted, the proposed activity must be deemed to represent the sustainable use and development of a physical resource and any adverse effects of the activity on the environment should be avoided, remedied or mitigated.

These principles underpin all relevant Plans and Policy Statements, which provide more specific guidance for assessing this application.

5.2 Tasman Regional Policy Statement

The Regional Policy Statement seeks to achieve the sustainable management of land, water and coastal environment resources. Objectives and Policies of the Policy Statement clearly articulate the importance of protecting land resources from inappropriate land use and development.

Because the Tasman Resource Management Plan was developed to be consistent with the Regional Policy Statement, it is considered that an assessment under the TRMP will satisfy an assessment against Policy Statement principles.

5.3 Tasman Resource Management Plan

The most relevant Objectives and Policies to this application are contained in Chapter 33. The following Policies and Objectives have been considered relevant for this proposal:

Objectives and Policies
33.4.0 Objective ***On-site disposal of domestic waste-water, which avoids, remedies or mitigates adverse effects on groundwater or surface water quality, habitats, human health and amenity values.*** *Policies* *33.4.2 To ensure that the adverse effects, particularly the cumulative adverse effects, of on-site disposal of domestic wastewater on water quality and aquatic habitats, including coastal water, and on human health or amenity in the Wastewater Management Area are avoided, remedied or mitigated by:* *(a) controlling the use of on-site systems in areas where there are significant limitations to sustainable on-site disposal of domestic wastewater including:* *(i) low or very low permeability clay soils;* *(ii) rapidly draining coastal soils;* *(iii) areas of high groundwater tables;* *(v) steeply sloping sites, especially on south facing slopes;*

Objectives and Policies
(v) unstable terrain; *(vii) proximity to surface water bodies;* *(vi) high density of existing and new on-site systems and the cumulative impact of such discharges in terrain that has significant limitations to on-site disposal;* *(b) requiring comprehensive site and soil assessments to identify any site limitations;* *(c) requiring a high level of performance for design, construction, installation, operation and maintenance for new on-site disposal systems;* *(d) ensuring adequate buffers between disposal fields, water bodies, and the coast, especially Waimea and Mapua Inlets;* *(e) reducing the risk to human health arising from pathogens in the wastewater entering into water;* *(f) ensuring the net Nitrogen losses from land in the Wastewater Management Area to be subdivided do not result in adverse effects on aquatic habitats as a result of discharges of domestic wastewater;* *(g) ensuring stormwater management accounts for potential effects on on-site disposal fields;* *(h) ensuring that the potential adverse effects, especially cumulative effects of further residential development, are taken into account in considering any application to subdivide land in the Wastewater Management Area.* *33.4.2A To require regular programmed maintenance of on-site wastewater treatment and disposal systems to minimise risk of system failure and reduce risk of adverse environmental effects.* *33.4.2B To encourage consideration of wastewater treatment systems that service a cluster of households (subject to any site limitations) to:* *(a) take advantage of opportunities for high technology advanced wastewater treatment solutions at cluster scales;* *(b) reduce risks of system failure and cumulative adverse effects of single on-site systems;* *(c) enable Council to develop effective and cost efficient systems for monitoring on-site wastewater systems.* *33.4.2C To ensure that legal, practical, financial and enforceable responsibility is established for the operation and maintenance of any on-site wastewater treatment and disposal system, especially where such systems service a cluster of dwellings, taking into account both day-to-day operation and maintenance of such systems as well as provision for depreciation and replacement of equipment and of systems.*

Details of the assessment of the proposed activity in terms of these matters are addressed through the assessment of actual and potential effects in paragraphs 6.1-6.4 below and analysis and discussion on the relevant policies and objectives in paragraph 6.5 of this report.

6. ASSESSMENT

Pursuant to Section 104(1)(a) of the Resource Management Act, the following effects assessment has been set out:

6.1 Actual and Potential Environmental Effects

6.1.1 Proposal Summary

The applicant's proposals for the collection, treatment and discharge of domestic wastewater to land are described in detail in the report by Cameron Gibson and Wells Ltd (dated 1 September 2009). The proposals and site assessment are summarised below.

6.1.2 Discharge to Land

Design Brief and Site Assessment

The wastewater systems for the campgrounds increased maximum capacity was designed based on the precautionary assumption that overall occupancy would be 500 people. It must be borne in mind that these peak occupancy levels are for a relatively short period over the main Christmas/New Year period, and that thereafter occupancy levels will drop sharply to the normal average levels.

Soils were assessed using methods described in the standard on-site wastewater system design guide and the Australian / New Zealand Standard AS/NZS1547:2000[1].

The underlying geology of the area is classified as a fine sand loam topsoil from 200 to 500mm (Category 2), over fine to coarse sand layers (Category 1), with some rocks encountered at depths of 800mm or more. Test logs undertaken by Cameron Gibson Wells Limited have identified as per AS/NZS 1547:2000 the overall soil category in the proposed effluent land application areas as Category 1 - Gravels and Sands - Rapidly Drained.

Wastewater Flows

A design flow volume of 96 litres per person per day was assumed. This is a normal design volume for camping grounds. As such, the total daily wastewater flow has been assumed as a maximum five hundred people × 96 litres = 48,050 litres per day.

On-site Wastewater Treatment (from CGWLtd Report 12231-15a)

> "All systems are designed on the basis of providing primary treated effluent to the disposal area for further in-ground treatment in the sandy soils or through take-up by evapotranspiration. The soil in the general area where new disposal

1. AS/NZS1547:2000 On-site domestic-wastewater management. Standards New Zealand

is proposed was investigated on 2 April 2007 and identified as 500mm of fine sandy topsoil over fine sand to 900mm over medium sand to 1550mm where stony ground was encountered. No groundwater was encountered. These fine sandy soils are ideal for in-ground treatment with respect to the removal of microbiological (i.e. faecal) contaminants and suspended solids. Where modifications to existing systems or new systems are proposed, they are outlined in Table 1. Sufficient consideration has been given to confirm that the proposed systems are feasible. Final detailed design in regards to pump and pipe sizing, LPED squirt hole size and spacing, and other details will be completed prior to application for the associated building consents.

Consideration of the flows from each area was given in the appendix of the report, and peak flows are summarised in Table 1. Auckland Regional Council TP58 indicates that typical domestic (combined) effluent quality ranges for septic tanks with outlet filters are 70 to 120g/m^3 BOD and 30 to 70g/m^3 TSS. For greywater only the typical values are 50 to 80g/m^3 BOD and 30 to 50g/m^3 TSS. Since the loading at a holiday park tends to be very seasonal, and increases rapidly during holiday periods, we would expect the maximum values to be near the top or above these ranges. Primary treatment effluent quality is assumed to be <150mg/L BOD and <150mg/L TSS. However, short term loadings even above these values would generally not be a concern since a significant proportion of the treatment occurs within the soils and there is substantial resting periods. While septic tanks are not effective in removing faecal coliforms, near complete removal of faecal coliforms generally occurs within a few tens of centimetres in unsaturated sandy soils.

Monitoring of the groundwater in the vicinity of the evapotranspiration beds in areas 7 and 8 has been proposed. This could be analysed for faecal coliforms and BOD. Upstream and downstream monitoring bores are proposed in the locations shown on the attached plan. We do not consider that monitoring of river water is likely to be useful because of the potential for other sources of contamination on the river. Monitoring for BOD and TSS of septic tank effluent from the blackwater and combined wastewater systems could also be undertaken. However, it must be understood that effluent quality from septic tanks can vary significantly over time, and a large portion of the treatment occurs within the soil.....

..... there will no longer be dripline used for disposal of primary treated wastewater. While it is possible to discharge primary effluent (greywater, blackwater or combined) through dripline, there are higher system costs due to the need for extra flitering and closer dripline spacing, increased maintenance requirements, and higher dripline clogging risks."

And ... "In our report we provided the information we have on the exiting systems. We did not design these systems so do not have the detailed design. However, we give the basis of our evaluation in our report and summarise it further in Table 1. The only systems to remain unchanged are the individual dwelling systems, and the evapotranspiration beds in areas 7 and 8. Although on the basis of the average application rate the evapotranspiration beds appear to be appropriately sized, we recommend groundwater monitoring to confirm their effectiveness. If it were determined that these beds are causing microbiological contamination (based on faecal coliform analysis), the disposal

systems could be replaced with LPED systems similar to those being proposed elsewhere on the property."

On site Wastewater Land Application

The following possible site constraints need to be taken into account at the final design stage prior to building consent application: soil type, slope angle, groundwater separation, proximity of bores, proximity of surface water, surface water overland flow paths, slope stability, boundaries and proximity of buildings, reserve areas and proposed land use of the primary land application area.

The TRMP expects a maximum loading rate of 35 mm per day (35 litres per square metre per day), a rate based on the AS/NZS 1547:2000 standard for irrigation systems in Category 1 soil. The land application areas are designed for the discharge of a maximum peak occupancy total of 48,050 litres per day at a rate of 35 litres per square metre per day. The land application areas shall be as described in the Cameron Gibson and Wells 1 September 2009 Report 12231-15a Appendix One - System Design Summary - Table 1.

The Cameron Gibson and Wells Ltd report states however that there is enough useable area distributed throughout the property in appropriately located landscape planting for the land application areas , without locating them within camping sites or where there is regular vehicular traffic. Suggested locations of the land application and reserve fields have been provided in CGW Ltd Job No. 12231 Sheet WW01 Revision A (attached as Plan A).

6.2 Assessment: Discussion of Key Potential Environmental Effects

Before providing an explicit assessment of the key potential environmental effects associated with the proposed maximum wastewater discharges, some general comments on the application should be made as follows:

Comments on Applicant's Wastewater Report

The system proposed and the recommended conditions require that the Consent Holder design the system in accordance with the AS/NZS 1547:2000 standard and submit the design to Council's Coordinator, Compliance Monitoring.

The site inspection methods and soil assessment methods used are considered to be appropriate and the soil types identified were consistent with the Council's understanding of soils in this area.

The wastewater system type that is proposed for the site is suitable for the intended use and is widely available. Maintenance contracts and other mitigation factors recommended in the report are also widely available and will help to minimise any adverse environmental effect of wastewater discharge to land. The details provided on the typical quality of wastewater produced by these systems were also realistic.

The application site is large enough that there is ample room for reserve land application areas. The purpose of a reserve area is two-fold. First, to allow for effluent disposal lines/trenches to be re-laid in fresh soil should the soils in the primary land application area become clogged. The main circumstance under which

this would happen is the development of anaerobic conditions in the soil, leading to the excessive growth of slimes. Industry experience suggests that the occurrence of this is both rare, and usually able to be remedied. Clogging, if it occurs, is usually concentrated around the dripper lines themselves; their removal followed by rotary hoeing of the soils leaves the primary land application area ready for the installation of new dripper lines. Therefore, following the failure of a wastewater system, it is unlikely that the reserve land application area would need to be used. Notwithstanding this, it is prudent that a reserve area should be available and the land should not be used for permanent structures that would prevent its future use, as the possible future need for a reserve can not be ruled out.

The second reason for the provision of reserve areas is to allow for the expansion of the primary land application area. This might be necessary for a variety of reasons including future possible campsite expansions and subsequent increase in the volume of wastewater to be discharged. Another possible reason is that the hydraulic capacity of the soil was overestimated at the time of system design, and it is discovered that a lower rate of wastewater discharge needs to be applied.

The provision for up to 100% reserve area can be accommodated for the proposed development.

Key Potential Environmental Effects

The key potential environmental effects associated with domestic wastewater discharges from the proposals are as follows:

- Impact on surface water quality
- Impact on groundwater quality
- Impact on soils
- Impact on amenity values

Adverse impacts on surface water, groundwater and soils themselves can be avoided through appropriate design and site assessment. Aside from the type of wastewater system itself, which has been discussed above, one of the most important aspects of wastewater design is the soil into which wastewater is to be discharged. Wastewater receives “treatment” by bacteria in the soil following its discharge from the wastewater system. The discharge should occur at a rate within the hydraulic capacity of the soil (i.e. at a rate at which the soil can physically absorb and transmit the water). If the discharge is maintained below this rate, then typically the soils remain aerobic (air spaces are present within the soil), and so the water is treated by aerobic bacteria. If the rate of discharge above this rate, then these air spaces may be lost (the soil becomes saturated). Under these conditions the anaerobic bacteria multiply in the soil and these typically emit an offensive odour. Furthermore, some of the discharged wastewater may reach the surface. Neither of these outcomes are intended nor desirable.

This situation is best avoided by the installation of a wastewater system that is suitable for the site, and in particular, discharges the treated wastewater at an appropriate rate for the soil type. These key design parameters have been met in the applicant’s wastewater design report.

Adverse impacts on surface water quality should be avoided because the wastewater system will be properly designed and a maintenance schedule will be enforced, should consent be granted. The land application areas proposed are located more than 20 metres from any waterbody. Should consent be granted, the disposal fields should be designed as per the recommended conditions, which reference the AS/NZS 1547:2000 standard and require approval by Council's Co-ordinator Compliance Monitoring.

The discharge of wastewater is the subject of an Engineering Report by Cameron Gibson Wells Ltd (Peter Born) which concludes that wastewater can be adequately dealt with on site.

Council's Wastewater Building Consultant Robert Cox considered the generic design report submitted by Cameron Gibson Wells Ltd. and advised that the design proposed so far were to his satisfaction and that AS:NZS 1547 is likely to be achieved, and the requirements of the TRMP met.

As has been discussed above, it is considered that the proposed wastewater systems are appropriate for the site, the design flow volumes are generally suitable for the proposed levels of occupancy and the irrigation rates are suitable for the proposed volumes of water and the soil types present. Therefore, it is not expected that there be any adverse effect on the soils, surface water nor groundwater that could be considered more than minor.

6.3 Permitted Baseline

Under Section 104 (2) of the Resource Management Act the Council may use the "permitted baseline" test to assess the proposal. Under this principle the proposal is compared with what could be done as permitted activities under the relevant Plan.

Rule 36.1.4 provides the permitted activity status for new discharges in the Rural zone. The proposal meets the permitted activity standards in all aspects apart from the volume of effluent discharged exceeding a weekly averaged flow of 2000 litres per day over the peak summer period , hence making the discharges a Discretionary Activity under 36.1.16.

The discharge of wastewater is the subject of an Engineering Report by Cameron Gibson Wells Ltd (Peter Born) which concludes that wastewater can be adequately dealt with on site.

Council's Wastewater Building Consultant Robert Cox has considered the generic design report submitted by Cameron Gibson Wells Ltd. and advised that the design proposed so far were to his satisfaction and that AS:NZS 1547 is likely to be achieved, and the requirements of the TRMP met in so far as any adverse effects can be avoided remedied or mitigated by the imposition of appropriate conditions on any consent that may be granted.

6.4 Relevant Objectives and Policies of the TRMP

The relevant objectives and policies of the TRMP are listed the paragraph 5.3 of this report. All the relevant objectives and policies can be met by the proposed development.

7. SUMMARY

7.1 Principal Issues

The principal issue for this consent application is whether the proposed development can be adequately serviced in terms of domestic wastewater disposal so the effects on the environment will be no more than minor.

7.2 Statutory Provisions

This bundled application is Discretionary in status as an activity in the Rural 1 zone. The Council must consider the application pursuant to Section 104 of the Resource Management Act 1991.

7.3 Overall Conclusion

Overall the writer's assessment is that the actual adverse effects on the environment are less than minor and the proposal is generally consistent with the objectives and policies, and matters of discretion in the Tasman Resource Management Plan.

8. RECOMMENDATION

The recommendation to grant or decline this bundled application for discharge permit is dependent upon the Committee's decision whether or not to grant the overall land use consents RM090280 and RM090748.

Having considered the application in detail, having visited the site, and drawing on experience of current wastewater discharges, it is the writer's view that the adverse environmental effects of the proposed activity will be no more than minor, and that there is no reason why resource consent for the discharge of wastewater to land should not be granted subject to the recommended conditions below, (should the hearing panel decide to approve the overall development proposed by RM090280 and RM090748):

9. RECOMMENDED CONDITIONS

9.1 Discharge of Domestic Wastewater to Land (RM090271)

1. The design and the construction and operation of the approved wastewater treatment and disposal system shall be in general accordance with the design report prepared by Cameron Gibson Wells Ltd, (reference 12231-15a and dated 1 September 2009) with the application for resource consent, unless inconsistent with the conditions of this consent, in which case these conditions shall prevail.

   Advice Note:
   The wastewater system designer should be involved from an early stage with other parties responsible for the design. Design flow volumes, design and sizing of the land application area and reserve land application area needs to be undertaken concurrently with, for example, landscaping designs and planning.

2. The maximum rate of discharge shall not exceed 48,050 litres per day and shall occur in the locations shown on Plan A (attached) with a minimum setback from the boundaries of at least 20m. Should the applicant wish to move the fields further from the boundary or alter the field shapes, the applicant must first obtain the written approval of the Council's Co-ordinator Compliance Monitoring

3. The maximum loading rate at which the wastewater is applied to land shall not exceed 35 millimetres per day (35 litres per square metre per day). The land application areas shall be as described in the Cameron Gibson and Wells 1 September 2009 Report 12231-15a Appendix One - System Design Summary - Table 1.

4. The treated wastewater entering the land application area, as measured at the sampling points required to be installed in accordance with Condition 11, shall comply at all times with the following limits:

   a) the five day biochemical oxygen demand (BOD_5) in any single sample shall not exceed 150 grams per cubic metre; and

   b) the concentration of total suspended solids (TSS) in any single sample shall not exceed 150 grams per cubic metre.

5. There shall be no ponding of wastewater on the ground surface, or any direct discharge or run-off of wastewater to surface water.

6. The construction and installation of the wastewater treatment plant and land application systems shall be carried out under the supervision of a person who is suitably qualified and experienced.

   That person shall provide a written certificate or producer statement to the Council's Co-ordinator Compliance Monitoring prior to the exercise of this resource consent. This certificate or producer statement shall include sufficient information to enable the Council to determine compliance with Conditions 1, 3, and 11 and shall also confirm the following:

   a) that all components of the wastewater system (including the treatment plant and the land application area) have been inspected and installed in accordance with standard engineering practice and the manufacturer's specifications;

   b) that all components of the wastewater system are in sound condition for continued use for the term of this resource consent.

7. The Consent Holder shall submit a set of final "as-built" plans to the approval of the Council's Co-ordinator Compliance Monitoring, showing the location of all components of the wastewater treatment and land application systems. For the purpose of this condition, the Consent Holder shall ensure that the "as-built" plans are drawn to scale and provide sufficient detail for a Council monitoring officer to locate all structures identified on the plans, including the sampling point required to be installed in accordance with Condition 11.

8. No grazing stock shall be allowed access to the land application area at any time. In the event that such stock are held elsewhere on the property, suitable fences shall be installed around the land application area to prevent access by such animals.

9. Suitable reserve land application areas equivalent to not less than 100% of the land application areas (see Condition 3) shall be kept available for future use of wastewater disposal. These reserve areas shall remain undeveloped. For the purpose of this condition, "undeveloped" means that no buildings or structures shall be constructed on the areas set aside as reserve land application areas, however the reserve areas may be planted with trees or other vegetation.

10. Sampling points to allow collection of a sample of the treated wastewater shall be provided at points located after the final pump-out chambers and before the points where the wastewater discharges to the land application areas.

Maintenance and Monitoring

11. Samples of the treated wastewater shall be collected yearly in either January or February following the first exercise of this consent from the sampling point referred to in Condition 10. The samples shall be tested for BOD_5 and TSS by an accredited environmental testing laboratory. Results of these tests shall be forwarded to Council's Co-ordinator Compliance Monitoring within 10 working days of the results of each test being received by the Consent Holder.

    The samples required by this condition shall be taken at times when the campground is being used in a typical fashion. "Typical fashion" means that the occupancy, at the time of sampling and during the preceding 48 hours, matches the number of people who normally reside in the campground. The samples shall be taken using laboratory supplied containers and according to the procedures directed by the accredited environmental testing laboratory and shall be transported to the laboratory under chain of custody.

12. The Consent Holder shall enter into, and maintain in force at all times, a written maintenance and monitoring contract with an experienced wastewater treatment plant operator, or a person trained in the wastewater treatment operation by the system designer, for the ongoing maintenance of the treatment and land application systems.

    The contract shall specify the frequency of treatment plant inspections and maintenance during the term of this resource consent and shall include an inspection and maintenance schedule that is in accordance with the conditions of this consent.

    A signed copy of this contract shall be forwarded to the Council's Co-ordinator Compliance Monitoring prior to the exercise of this consent.

13. Notwithstanding Condition 12, the wastewater treatment and land application system shall be inspected and serviced at least every six months and a copy of the service provider's maintenance report shall be forwarded to the Council's Co-ordinator Compliance Monitoring within two weeks of each inspection. The inspection report shall include, but not be limited to, the following information:

a) the date the inspection was undertaken and the name of the service provider;

b) a list of all components of the treatment and land application systems that were inspected and the state of those components;

c) any maintenance undertaken during the visit or still required, and a timetable for the expected completion of this work;

d) a description of the appearance of the filter/s and tanks;

e) the location and source of any odour detected from the system; and

f) a description of the appearance of the land application area (ponding, vegetation growth, etc).

Review of Consent Conditions

14. The Council may, during the month of March each year, review any or all of the conditions of the consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:

    a) to deal with any adverse effect on the environment which may arise from the exercise of the consent that was not foreseen at the time of granting of the consent, and which is therefore more appropriate to deal with at a later stage; and/or

    b) to require the Consent Holder to adopt the best practical option to remove or reduce any adverse effects on the environment resulting from the discharge; and/or

    c) to review the contaminant limits, loading rates and/or discharge volumes and flow rates of this consent if it is appropriate to do so; and/or

    d) to review the frequency of sampling and/or number of determinants analysed if the results indicate that this is required and/or appropriate;

    e) to require consistency with any relevant Regional Plan, District Plan, National Environmental Standard or Act of Parliament.

Lapse Date

15. Pursuant to Section 125 of the Act this consent shall lapse 5 years after the date of this consent unless either the consent is given effect to, or the Council has granted an extension pursuant to Section 125(1)(b) of the Act.

Expiry

16. This resource consent expires on XXXXXX (15 year duration)

ADVICE NOTES

1. Officers of the Council may also carry out site visits to monitor compliance with resource consent conditions.

2. The Consent Holder should meet the requirements of the Council with regard to all Building and Health Bylaws, Regulations and Acts. Building consent will be required for these works.

3. Access by the Council or its officers or agents to the property is reserved pursuant to Section 332 of the Resource Management Act.

4. All reporting required by this consent should be made in the first instance to the Council's Co-ordinator Compliance Monitoring.

5. Council draws your attention to the provisions of the Historic Places Act 1993 that require you in the event of discovering an archaeological find (eg, shell, midden, hangi or ovens, garden soils, pit, depressions, occupation evidence, burials, taonga) to cease works immediately, and tangata whenua, the Tasman District Council and the New Zealand Historic Places Trust should be notified within 24 hours. Works may recommence with the written approval of the Council's Environment & Planning Manager, and the New Zealand Historic Places Trust.

6. This resource consent only authorises the activity described above. Any matters or activities not referred to in this consent or covered by the conditions must either:

   a) comply with all the criteria of a relevant permitted activity rule in the Tasman Resource Management Plan (TRMP);

   b) be allowed by the Resource Management Act; or

   c) be authorised by a separate resource consent.

7. Plans attached to this consent are (reduced) copies and therefore will not be to scale and may be difficult to read. Originals of the plans referred to are available for viewing at the Richmond office of the Council. Copies of the Council Standards and documents referred to in this consent are available for viewing at the Richmond office of the Council.

Mike Mackiggan
Consent Planner - Natural Resources

Plan A: RM090271- Marahau Estates Limited - Wastewater